# “On Growth and Form”

by
Kipp Kobayashi

4th Street - Reno Public Artwork

***CONCEPT:***

Places are a product of give and take, an organic and iterative process that symbiotically affects history, identity and growth. The environment guides and directs our perceptions, thoughts and actions as we in turn define its form and character. Inspired by 4th Street’s past and current connections to manufacturing and transportation, “On Growth and Form” imagines how these collective memories and experiences influence the very essence of the places we live.

Beginning as a country road adjacent to the Central Pacific Railroad, 4th Street has a history steeped in an industrial vocabulary, playing host to a wide variety of manufacturing and material processing facilities that took advantage of their proximity to the adjacent Central Pacific Railroad and later interstate highway US 40. These businesses have served both local and regional clients and over time have included glass, textile, metal, livestock and spirits, many of which can still be found there today. Tracing the history of the project site, I was interested to discover that it had once been home to Reno Mill and Lumber (later the Verdi Lumber Company then the Eveleth Lumber Company), a planing mill and sash factory with yards that accommodated several thousand acres of pine cut from the nearby Tahoe basin. I began to consider not only the sheer volume of timber that had passed through the site but also the mechanical process of changing these beautiful organic forms into geometrically shaped and regularly dimensioned materials that could readily be used for building and construction. At the same time, the activity of “making” and the culture of “makers” is still very much present in the area today, inspiring me to explore how such carefully constructed materials could be reverse engineered to recreate these organic forms. Playing off of the existing overpass and the role transportation has played in 4th Street’s history, I imagined them emanating from the bridge as if growing out from its very structure. Flourishing independently but still integral to the form, they will appear as fantastical visions – as if history has emerged from the past - reimagined and reinterpreted through the many different lenses of time.

***FABRICATION AND INSTALLATION:***

The installation will consist of 25-FT high sculptural tree forms surrounding two bridge support columns located over the roadway and diagonally opposite from one another. Constructed of a welded inner support frame of #8 rebar (1.00” nominal diameter) and clad with hand-formed .063” steel wire mesh (.437” square openings), they will be anchored at the base of the existing piers. The specific forms will be based on the pines used commonly by the local mills and translated into digital models and “unfolded” to produce full-size patterns and part layouts that can be used for final fabrication. The

cladding pieces will then be cut out, formed and stitched together over the rebar frame with mechanical fasteners. Once completed, they will be finished with a custom color Sherwin Williams Extrusion Coating. To enhance their ethereal appearance, each tree will be illuminated internally by means of three Coloronix SS2 LED lighting fixtures installed at the base of each column allowing them to glow at night and cast shadows on the underside of the bridge. The artwork will be fabricated in parts to ease delivery and then reassembled on site. The installation will be performed over the course of 8-10 days with the aid of a boom lift.

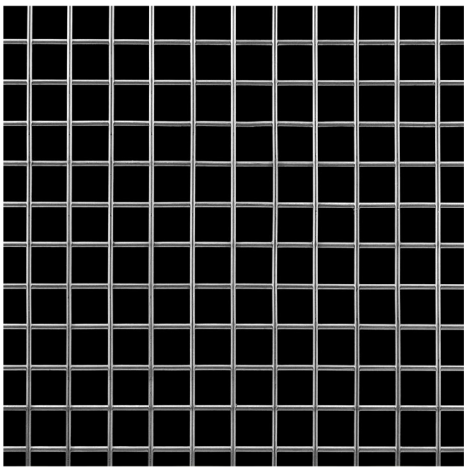
***MAINTENANCE:***

Metal surfaces finished with Sherwin Williams Extrusion Coatings are extremely durable in outdoor environments and can accommodate on-site touch-ups if needed. Under normal circumstances, surface cleaning by means of light pressure washing or compressed air performed regularly should be sufficient to keep the installation looking as intended. Attachments and base connections should be periodically inspected to ensure that they are functioning properly. The Coloronix SS2 LED lighting fixtures are rated to retain full brightness for 35,000 hours and should periodically be cleaned and checked per manufacturer's recommendations. The artwork will be installed to assure proper clearances and to allow necessary for any utilities or maintenance access.

*Submitted by Kipp Kobayashi* *12/07/2020*

McNICHOLS®
Industrial & Architectural Hole Product Solutions Since 1952.





# McNICHOLS® WIRE MESH

Square, Stainless Steel, Type 304, Welded - Trimmed, 2 x 2 Mesh (Square), 0.4370" x 0.4370" Opening (Square), 0.063" Thick (16 Gauge) Wire Diameter, 76% Open Area

**McNICHOLS®** Wire Mesh, Square, Stainless Steel, Type 304, Mill Finish, Welded - Trimmed, 2 x 2 Mesh (Square), 0.4370" x 0.4370" Opening (Square), 0.063" Thick (16 Gauge) Wire Diameter, Wire Ends Trimmed on all Four Sides of Coil with Standard Overhang of 1/8" or Less, 76% Open Area

**ITEM** 3802423610 - 36" x 1200"

## ITEM SPECIFICATIONS

| | |
|---|---|
| **Item Number** | 3802423610 |
| **Product Line** | Wire Mesh |
| **Mesh Type** | Square |
| **Construction Type** | Welded |
| **Primary Material** | Stainless Steel (SS) |
| **Alloy, Grade or Type** | Type 304 (304) |
| **Material Finish** | Mill Finish |
| **Weave or Trim Type** | Welded - Trimmed |
| **Mesh Size** | 2 x 2 |
| **Opening Size** | 0.4370" x 0.4370" |
| **Wire Diameter/Wire Gauge** | 0.063" Thick (16 Gauge) |
| **Wire Ends** | Trimmed on all Four Sides of Sheet with Standard Overhang of 1/8" or Less |
| **Percent Open Area** | 76% |
| **Weight** | 0.52 Lbs./Square Foot |
| **Product Form** | Full Coil |
| **Sizes (Width x Length)** | 36" x 1200"; 48" x 1200" (Cut Lengths Available) |

HARRIS SUPPLY SOLUTIONS

888.231.1577

# #8 Rebar

Composed of a sturdy carbon steel composite, #8 rebar is a high-grade reinforcement product trusted for medium or heavy commercial applications. #8 reinforcement steel is known as “25MM” in the metric system.

Project uses for this large-diameter rebar includes:

- Footings
- Piers
- Columns and beams
- Caissons
- Shear walls
- High-rise transfer slabs
- Bridge abutments
- Sea walls
- Retaining walls

## Physical Characteristics of #8 Rebar:

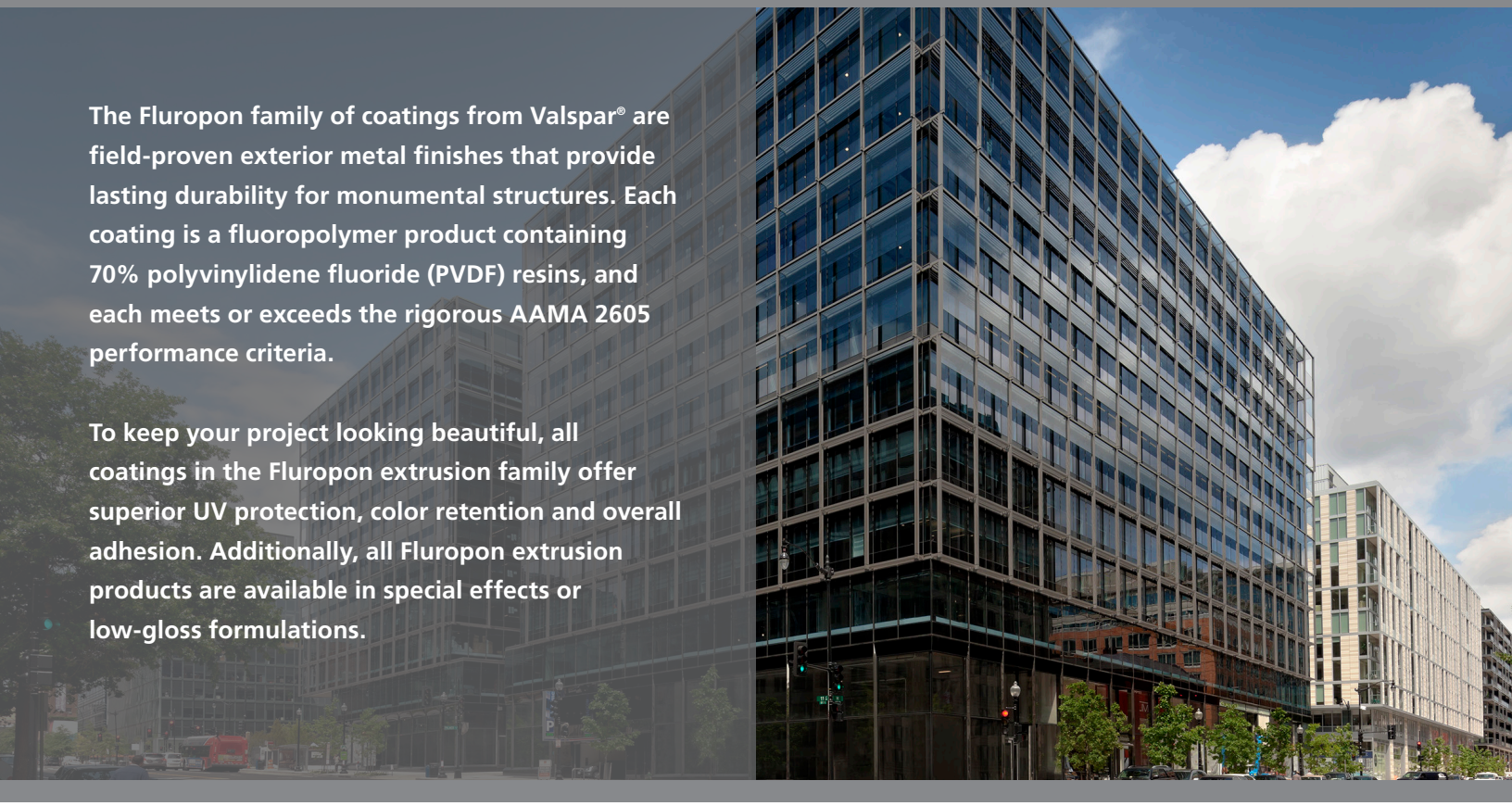
- Weight per unit length: 2.67 pounds per foot (3.982 kilograms per meter)
- Nominal diameter: 1.000 inches (25.4 millimeters)
- Nominal area: 0.79 square inches (509 square millimeters)

| Imperial Bar Size | "Soft" Metric Size | Weight per unit length (lb/ft) | Mass per unit length (kg/m) | Nominal Diameter (in) | Nominal Diameter (mm) | Nominal Area($in^2$) | Nominal Area ($mm^2$) |
|---|---|---|---|---|---|---|---|
| #8 | #25 | 2.67 | 3.982 | 1.000 | 25.4 | 0.79 | 509 |

As the largest U.S. supplier of premium rebar and remesh products, Harris Supply Solutions boasts a number of local sales offices throughout the nation. Delivering client-focused service at all project phases, we offer fast turnarounds and expedited shipping to suit your timelines. To inquire about project pricing, or to speak with a #8 rebar specialist, contact our sales team via email or phone today.

valspar
if it matters, we're on it.®

# Fluropon® 70% PVDF Architectural Extrusion Coating Systems



**The Fluropon family of coatings from Valspar® are field-proven exterior metal finishes that provide lasting durability for monumental structures. Each coating is a fluoropolymer product containing 70% polyvinylidene fluoride (PVDF) resins, and each meets or exceeds the rigorous AAMA 2605 performance criteria.**

**To keep your project looking beautiful, all coatings in the Fluropon extrusion family offer superior UV protection, color retention and overall adhesion. Additionally, all Fluropon extrusion products are available in special effects or low-gloss formulations.**

## Fluropon

Our flagship product. Its excellent performance is a direct result of Valspar's innovative technology — a two-coat formulation of fluoropolymer resin that continually exceeds performance needs while maintaining its color and durability.

## Fluropon Classic II

When a pearlescent appearance is desired, this two-coat system delivers a subtle or bold sparkle appearance that adds a new dimension to your project.

## Fluropon Classic

With its special metallic-effect color and a clear coat for added shine and protection, Fluropon Classic is a three-coat system that takes vibrancy to a new level of performance.

## Fluropon Premiere

When you want to make a statement with bold and bright colors, this three-coat system brings out depth and beauty of bright pigments while offering a clear coat for added protection.

## Fluropon Effects

Fluropon Effects includes our effects coatings: Kameleon, Nova and Rustica. Our effects coatings are multi-coat systems that create unique mesmerizing effects. Kameleon has pearlescent hues with active color shifts. Nova creates colors with an intense sparkle in silver or gold that has never before been achieved in traditional pearlescent systems. Rustica features natural and polychromatic colors with a weathered, antique look.

# Fluropon[by]70% PVDF Architectural Extrusion Coating Systems

## BENEFITS

- Superior resistance to UV rays
- Outstanding color retention and consistency
- Excellent overall adhesion
- High film integrity

## SUBSTRATES

Coatings in the Fluropon family may be applied to pre-treated aluminum panels and extrusions.

## COLORS

Our Fluropon systems are available in a wide range of colors and special effects to achieve nearly any look you can dream up.

## END USES

All Fluropon family products are ideal for external use on monumental high-rise structures and pre-engineered buildings, including:

- Architectural curtain walls, louvers and grills
- Aluminum panels and extrusions
- Architectural soffits, fascia, mullions and column covers
- Residential and architectural windows and skylights, plus door and access systems

## COMMITMENT TO QUALITY.

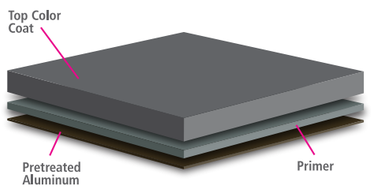
Our coatings are trusted and field proven through rigorous testing. Providing key benefits to our customers.

## TECHNICAL DATA : FLUROPON FAMILY

| | | Fluropon | Premiere | Classic II | Classic | Rustica | Nova & Kameleon |
|---|---|---|---|---|---|---|---|
| | Coating System | 70% polyvinylidene fluoride (PVDF) fluoropolymer resin | | | | | |
| | Number of Coats | 2 coat | 3 coat | 2 coat | 3 coat | 2 or 3 coat | 3 coat |
| | Dry Film Thickness (DFT) | DFT: 1.2 - 1.7 mils<br>TC: 1.0 - 1.3 mils, P: 0.2 - 0.4 mils | DFT: 1.5 - 2.2 mils<br>Clear: 0.3 - 0.5 mils, TC: 1.0 - 1.3 mils, P: 0.2 - 0.4 mils | DFT: 1.5 - 2.0 mils<br>TC: 1.2 - 1.5 mils, P: 0.3 - 0.5 mils | DFT: 1.8 - 2.5 mils<br>Clear: 0.3 - 0.5 mils, TC: 1.2 - 1.5 mils, P: 0.3 - 0.5 mils | DFT: 1.2 - 1.7 mils<br>TC: 1.2 - 1.5 mils, P: 0.3 - 0.5 mils<br>Effect: (3 coat) 1.0 - 1.3 mils | DFT: 2.2 - 3.0 mils<br>Effect: 1.0 - 1.3 mils, Basecoat: 1.0 - 1.3 mils, P: 0.2 - 0.4 mils |
| | Industry Specification Compliance | AAMA[1] 2605-13 | AAMA 2605-13 | AAMA 2605-13 | AAMA 2605-13 | AAMA 2605-13 | AAMA 2605-13 |
| | Substrates | Applied to pretreated aluminum panels and extrusions | | | | | |
| Excellent scratch and mar resistance. | Abrasion Resistance, ASTM[2] D 968 | Pass | Pass | Pass | Pass | Pass | Pass |
| Superior coating adhesion to substrate. | Cross Hatch Adhesion, ASTM D 3359 | Pass, no loss of adhesion | Pass, no loss of adhesion | Pass, no loss of adhesion | Pass, no loss of adhesion | Pass, no loss of adhesion | Pass, no loss of adhesion |
| First-class protection against heat-related damage. | Flame Test, ASTM E 84 | Class A Coating | Class A Coating | Class A Coating | Class A Coating | Class A Coating | Class A Coating |
| Outstanding resistance to graffiti. | Graffiti Resistance, ASTM D 6578 / D 6578M | Meets and exceeds | Meets and exceeds | Meets and exceeds | Meets and exceeds | Meets and exceeds | Meets and exceeds |
| Amazing protection against corrosion caused by humidity and water. | Humidity Resistance, ASTM D 2247<br>100% RH @ 100° F - 4,000 Hours | Rating 8: No more than a few field blisters, ASTM D 714 | | | | | |
| Provides long-lasting durability against nature. | Impact Resistance (direct)<br>ASTM D 2794 | Pass | Pass | Pass | Pass | Pass | Pass |
| Excellent protection against scratches. | Pencil Hardness, ASTM D 3363 | F Minimum | F Minimum | F Minimum | F Minimum | F Minimum | F Minimum |
| Tremendous protection against corrosion. | Prohesion, ASTM G 85, Annex 5<br>2,000 Hours | Creep from scribe or edge no more than 1/16"(2 mm) Rating: 7 Field Blister Rating: 8 | | | | | |
| Exceptional resistance to UV rays, color retention and high film integrity. | South Florida<br>Color, ASTM D 2244<br>Chalk, ASTM D 4214<br>Gloss Retention<br>Erosion Resistance | Color: No more than 5Δ Hunter units at 10 years<br>Chalk: Rating no less than 8 at 10 years<br>Gloss: No less than 50%<br>Erosion: Less than 10% | | | | | |
| Multiple gloss levels, to provide the finish you desire. | Specular Gloss at 60°, ASTM[2] D 523 | Standard: 20 to 35<br>Low gloss: 5 to15 | 30 to 50 | 15 to 25 | 30 to 50 | 15 to 25 | 30 to 50 |

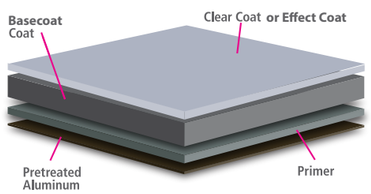
### FLUROPON TWO COAT SYSTEM

Two coat systems: Fluropon, Classic II, and Rustica




### FLUROPON THREE COAT SYSTEM

Three coat systems: Fluropon Classic, Nova, Kameleon, and Premiere




(1) American Architectural Manufacturers Association's. (2) American Society for Testing and Materials.

For details and health, safety and handling information, Material Safety Data Sheets (MSDS) are available at www.valsparcoilextrusion.com.



**Valspar Coil and Extrusion Coating Division — Phone: 866-351-6900 — Email: extrusionhelp@valspar.com — www.valsparcoilextrusion.com**

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COLORFUL ARCHITECTURAL ILLUMINATION

# SS2-RGBW-8R

ADJUSTABLE FLOOD/SPOT LIGHT

CATALOG NO. .....

TYPE .....

PROJECT .....

## APPLICATION

For the use of direct flood and/or accent lighting. To install as an above grade fixture. Perfect for applications desiring a dynamic color changing effect. Recommended for retail, modern residential, hospitality and entertainment installations. RGBW design allows fine-tuned pastel colors, saturated hues without sacrificing illumination brightness.

## ELECTRICAL

**Power Input:**
Direct 120-240 VAC input comes standard. 50/60 Hz

**Power Input Connection:**
Proprietary 3-pin watertight connectors pre-installed for easy daisy-chain connections up to 2.5 feet on center (9 units max)
Direct Line Voltage hard-wire if needed.

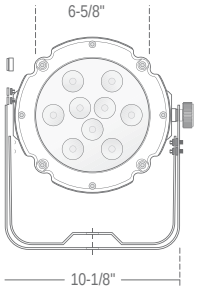
**Power Consumption:**
See ordering guide.

## PHYSICAL

**Environment:**
Wet location IP65

**Data Connection**
Proprietary miniature 3-pin watertight DMX connection for easy daisy-chain connections up to 2.5 feet on center (32 links max)

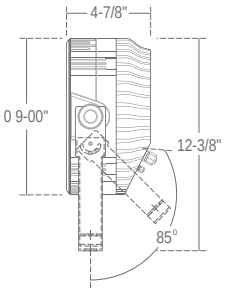
**Construction:**
Made of die-cast aluminum to protect light emiting diodes, other electronics and preserve optical alignment. Integral junction box provides easy access for electrical maintenance.
Steel screws installed on face plate for a tight gap-free installation onto housing.
Cast aluminum tightenging allows for 90º Tilt and 360º Rotation.




**Housing Finish:**
Painted black to maximize color mixing and eliminate stray light leaks.

**L70 Life:**
35,000 Hours for ambient temperatures under 85ºF.

**Temperature Rating:** 0°F - 104°F Ambient.




## COLOR DETAILS

**DirectDMX Color Control:**
Color controlled with USITT DMX512A Standard Protocol to work with Coloronix or 3rd Party DMX Systems such as the Color Kinetics® iPlayer 3. On board LCD display inside the Data Enabler allow selecting of DMX addresses between 1-512 in a given DMX universe. DMX Data fed to housing via proprietary 3-wire data cable. Data Input/Output ports allow daisy-chaining of DMX Signal.

**Stand Alone Color Control:**
Pre-Programmed static and dynamic scenes, as well as specific colors, can be user activated by the integral Data Enabler's computer eliminating the need for an external data source. On board LCD display inside the Data Enabler allow selecting of over 30 static and dynamic color sequences.

**LED Die Colors:**
Red (620-635nm) Blue (450-465nm)
Green (520-535nm) Neutral White (5000k)

**Color Mixing:**
Using InternaMix™ proprietary technology, colors are efficiently blended together through an internal mixing chamber. The one-color output reduces unsightly views of isolated Red, Green and Blue Diodes for a seamless rainbow-free appearance.

**Static Color Available:**
All Std. Colors, Consult Factory.

**Dimming:**
Smooth and flicker-free dimming of all colors down to 1% using Patented Color Mixing and Dimming technologies developed at Philips Color Kinetics®

## SAFETY

Complies to UL1598 and ANSI/UL 8750.

## ORDERING

example: SS2-RGBW-8R-10-B45/SWR-PWR-WL-80

| HOUSING | OPTIONS | BEAM SPREAD | ACCESSORIES |
|---|---|---|---|
| SS2-RGBW-8R | **-04:** 32W (4-LED) 1,100 max lm | **-B25:** NARROW FLOOD | **/SWR-PWR-WL-80:** 80" POWER JUMPER |
| | **-10:** 80W (10-LED) 2,500 max | **-B45:** FLOOD | **/SWR-PWR-WL-60-PI:** 60" PLUG-IN CORD |
| | **-15** 110W (15-LED) 3,500 max | **-B60:** WIDE FLOOD | **/SWR-DMX-WL-80:** 80" DMX/DATA JUMPER |

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